Access to Microfinance & Improved Implementation of Policy Reform (AMIR Program)

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Access Link Pricing
In The Kingdom of Jordan

Final Report

Deliverable for Policy Component
Task 4.6.17

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Access Link Pricing for Kingdom of Jordan

Abstract:

This report covers the cost of providing Access Links to the Internet also commonly known as the World Wide Web. Specifically it addresses the issues confronting the stakeholders of the Kingdom of Jordan regarding linking to the international telecommunications systems that enable Internet activity to take place with global access. It includes considerations as to how this pricing affects the vision of REACH and King Abdullah II to develop a viable IT industry in Jordan within 5 years. The author also makes recommendations based on a very brief review of the Jordanian technical, legal, and economic environment, status, and potential. Observations and recommendations are based on the author's background, experience and skills developed in over 30 years experience in the telecommunications and IT industry, including over 20 years with the US Bell System and 10 years as an international consultant and developer.

Based on this experience and very valuable perspectives and input from the stakeholders, recommendations include: Legal changes to enable competitive market forces to flourish, economic reasons to lower the cost of access to international telecommunications links, technical considerations for providers and regulators regarding cost structures and price support, and interconnection and standards for equipment.

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Part I - Schedule

Section A - Scope of Work, Deliverables and Deliverables Schedule

A.1. Background

The REACH Initiative was developed in 1999 as a national strategy and action plan for Jordan to develop a vibrant, export-oriented Information Technology Service sector. The strategy lays out the main thrusts to bolster the country's IT sector and outlines a clear plan of action to be undertaken by Jordan's private sector, government and other stakeholders. The initiative was developed by a core group of members of the Jordan Computer Society with technical support from the AMIR project and consultation with Jordan IT leaders.

As outlined in *The REACH Initiative: Launching Jordan's Software and IT Services Industry* (Aug 1999), the main strategic areas of this initiative include: 1) IT industry development 2) policy and regulatory strengthening 3) human resource development 4) government support 5) capital and financing and 6) infrastructure improvement. Each of these strategic areas in turn, includes a list of proposed actions (i.e., establish an IT industry association, strengthen university-IT industry ties, develop competitive pricing of high speed lines, etc) aimed at making the Jordanian IT services industry a leading export winner, rivaling the traditional mining and tourism sectors.

As a first step in implementing the REACH Initiative, the AMIR project established implementation working groups for each of the above six strategic areas and organized a series of consultative meetings in late July and August bringing together these working groups, technical experts and public and private sector stakeholders. The objective of these meetings - with technical experts serving as facilitators and presenters - was to discuss legal and regulatory constraints facing particular aspects of the IT industry and develop findings and recommendations overcoming such constraints. Recommendations place particular emphasis on laws and regulations and will be used by local legislative teams to draft legislative reform packages.

A.2. Scope of Work

1. Provide Internet Access and Pricing expertise for a series of meetings under the REACH IT Infrastructure Development strategic area.
2. Meet with and focus the REACH IT Infrastructure Development Working Team, a small team of IT association board members and/or IT industry specialists, on general Internet access and pricing issues.
3. This meeting will be followed by a larger meeting of stakeholders, including those in the public and private sector, the business community, and members of the IT association.

4. Make a presentation on the development of Internet access and pricing in a model environment, placing emphasis on the laws and regulations. This presentation geared to foster discussion among the presenter and participants and determined the extent to which legal and regulatory constraints currently hamper Internet access and pricing in Jordan.
5. Hold a second meeting with the IT Infrastructure Development Working Team, to discuss the findings from the stakeholders meeting and focus the IT Infrastructure Development Working Team on the legal and regulatory issues at hand.
6. Based on the observations and findings from all three meetings, a comprehensive report, sets forth legal and regulatory recommendations for consideration by the local legislative teams.

Specific Tasks: The Internet access and pricing expert will:

1. Read the following materials and prepare notes and/or background discussion materials as necessary, related to improved internet access and pricing in Jordan for use during subsequent meetings with the IT Infrastructure Development Working Team and the stakeholders:
    a. The REACH Initiative document (August 1999)
    b. REACH website
    c. Jordan Vision 2020 Document

    Completed - U.S.-Based Preparation Day - Aug 18

2. Attend "Pre-Stakeholder Meeting" with the Infrastructure Development Working Team
    Completed - Aug 21

3. Attend Special Stakeholder meeting, prepare a presentation on improved Internet access and pricing in a model environment and serve as a facilitator for a broad discussion among the stakeholders of the legal and regulatory constraints facing internet access and pricing development in Jordan.
    Completed - Aug 22

4. Attend "Post-Stakeholder Meeting" with the Infrastructure Development Working Team to discuss his observations and conclusions and focus the team on the reforms necessary to foster the development of the IT industry in Jordan.
    Completed - August 23

5. Prepare Recommendations Report Using findings and conclusions collected during the three meetings, prepare this comprehensive report, which sets forth legal and regulatory reform related recommendations for consideration by the local legislative teams.
    Completed - August 24

A.3. Deliverables

The Subcontractor shall be responsible for providing deliverables relating to the meetings described in the above tasks. These deliverables include:

(a) Attend the "Pre-Stakeholder" and "Post Stakeholder" meetings with the Infrastructure Development Working Team and focus the Working Team on legislative and regulatory reforms required to promote Internet access and pricing in the Jordanian IT sector.
Done

(b) Make a report on creating a model environment for Internet access and pricing in the Jordan IT sector, emphasizing the needed legal and regulatory reforms.
Done

(c) Prepare this report, using findings and recommendations collected during the three meetings, which sets forth legal and regulatory reform recommendations for consideration presentation at the Special Stakeholders meeting by the local legislative teams. These recommendations shall focus on the legislative and regulatory reforms necessary to create a model environment for Internet access and pricing in the Jordan IT sector.
Done

(d) The Report consists of:

a. The first section presents general ideas of a model IT environment for Internet access and pricing (i.e., best practices, state of the art) and a general discussion of salient related issues;

b. The second section discusses the issues, findings, and concerns discovered during meetings with the IT Infrastructure Working Team and the stakeholders;

c. The third section makes overall recommendations based on the author's expertise and the observations and conclusions from the three meetings.

A.4. Deliverables Schedule

The Subcontractor completed and submitted: deliverable A.3 (a) by August 23; deliverable A.3 (b) on August 22, 2000; and deliverable A.3 (c) August 24, 2000.

Section B - Calendar of Events

August 18, 2000 Friday Complete initial Research and leave Seattle, Washington home office for Amman

August 19 - Arrival Amman 11PM

August 20 – Meet AMIR-Jordan staff (Evon) – orientation

August 21 – Meet Ra'ed Bilbessi of int@j and Marwan Juma, NETS, lunch and briefing on REACH and issues of current market and ISPs (Internet Service Providers). Attended IT Park presentation. Conducted Pre-stakeholder Meeting. Prepared draft presentation

August 22 – Met with Ra'ed and Pierre Mattei - CEO Jordan Telecom (JTC), Mahmoud Wreikat – Telecommunications Regulatory Commission (TRC), Steve Wade – Program Director AMIR, and His Excellency Dr. Fawaz Hatim Zu'bi – Minister of Post & Communications. Completed and delivered 2½-hour presentation at the Special Stakeholders' meeting – approximately 60 attendees.

August 23 – Reviewed Telecommunications Law of 1995 with Rana bin Tarif, developed proposed changes to laws and regulatory process. Conducted Post-Stakeholders' meeting. Met with AMIR staff and associates.

August 24, 2000 – Wrote draft and delivered final report.

Acknowledgements

The author wishes to express his thanks and appreciation for the time and support of the agencies and people that assisted him in this effort. These include The Kingdom of Jordan, Chemonics, USAID, int@j, and the staff at the Hyatt Convention Center. Specifically thanks to Evon Warwar, Ra'ed Bilbessi, HE Zu'bi and Steve Wade for their time and advice. It is rare that such vision, enthusiasm and dedication to purpose are evident from every participant that I have met.

Part II - A model IT environment for Internet access and pricing

Section C - The development of a model IT environment

C.1 Why a model is needed

The development of a model IT environment for Internet access and pricing answers the "What" in conjunction with the "Why" is this important to Jordan? The REACH Vision is to develop IT skills as a national resource in Jordan to support the worldwide need for IT skills. This vision has been developed over the last year with input from virtually every aspect of Jordan's business and political communities.

Common estimates are that the US currently is lacking over 100,000 skilled IT workers to do projects already underway and over a million additional IT workers are needed world-wide to meet the demand of the next decade. By all previous measurements and predictions of IT and Internet related needs, this is probably low. The basic answer is – there is a demand for skilled IT workers to support the "New Economy" based on the ubiquitous access that the Internet provides. In addition, there is a requirement for every economy to build an Information Technology Infrastructure consisting of Technology, Economic Principles and an informed and knowledgeable population of workers and users.

Adoption of such a model allows Jordan to be competitive in the regional and world marketplace. Not just in Internet and IT labor forces, but also in the ability to utilize this resource to improve productivity and creativity throughout the economy and culture.

The model assumes that access and bandwidth costs need to be at world standard market value not only to allow the prices of the IT industry to be lower and therefore competitive, but also to encourage consumers – business and residential to be efficient buyers and sellers of products and services. "It's the economy!" is the catch phrase that explains the raison d'être for this model.

The model is needed to provide a framework in Jordan's emerging economy that is similar to the developing countries' model that has emerged as a high economic growth generator. It is expected that this model and the following sections provide guidelines that will be further analyzed and prioritized to add the tactical processes to the consensus strategic processes that have already begun.

Another consideration on what the model does is to consider that it is the "cost" of doing business in the IT industry and not just a price of an individual component of the overall Internet Access Link.

In Jordan, the price of local access links are reasonable - $JD20 ($US28) per month for 64 kbps, $JD270.4 for 1Mbps, $JD494.4 for E1 – 2Mbps. It is the extremely high cost of International access links that are required to access the World Wide Web as well as private line access to international communications centers that is the issue. This is discussed in more detail in Part III

below.

C.2. A Model for Pricing Internet Access Links

The value of a network to its subscribers is the number of other subscribers to which it can connect; therefore, the more subscribers the better. This is true for personal or social networks as well as technology networks. Volume also helps reduce the unit cost of exchange of information on the network as well as the efficiency of information distribution on the network.

What are needed in an efficient network-pricing model are three basic elements:

- knowledge of the costs of all elements of the network in order to have uniform costs and the lowest cost for every link,
- efficient design, and
- efficient operation.

In developed economies, the marketplace forces; i.e., economics, drives these efficiencies. It is not efficient in a monopoly market where the supplier sets the price and the consumer may only have a choice to buy or not to buy the only product offered, not a selection of price, quality and features. (This is also not true in a private network, such as military or a remote location where access is essential and costs are of less importance to the user.)

Recommendations for selecting a model are described below in Section F.

C.3. Technical Considerations

The access link that is used in developed countries to access the Internet and interact with other subscribers' web hosts and websites is built typically on a multi-tier set of links and access nodes to the World Wide Web. In fact, the very model of the Internet was originally designed to sustain a major communications failure of the traditional circuit based telephone network by allowing many alternate paths to exist around any switching point. This is called route diversity around a network bottleneck. Therefore the technical design of our network must allow for multiple access routes.

An efficient technical design typically starts with a web server linked to one or workstations via a Local area network (LAN) or via individual dialup lines to a single server. This server is then linked to an Internet Service Provider (ISP), they may incorporate any number of local users and servers into an Access Node. In this node, messages among members of the access node are linked to each other by the provider and do not need access off the access node network that they are a member of. For connection to users off this node, the ISP connects to a larger provider who then has access to a larger network access point (NAP) provided by one of several of the larger communications network (Tier 1) providers who provide numerous links to other NAPs, thus protecting the diversity of routing. These providers are authorized and monitored by a worldwide standards and administration body.

Efficient technical design then requires multiple access routes as well as connection to both the end user and the website they are trying to access. The amount of data that is transmitted is efficient if the amount of bandwidth – measured usually in bits per second, is sufficient to minimize the time delay between requesting information and receiving it. By its nature, this arrangement also provides economic efficiency by allowing all subscribers on all networks to be connected without any other intervention by the initial user. It is this economic value that is used by IT development and other

companies to make their services more cost effective.

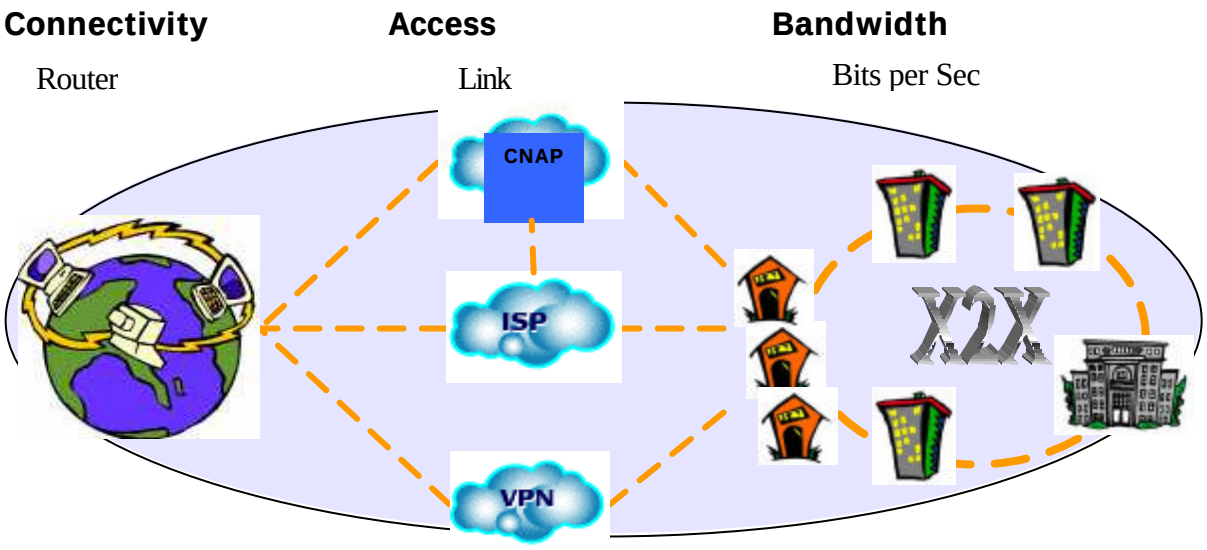
C.4 Economic Value and Costs

Almost as important as technical design is the economic cost of the access link. Our model must have the least cost link or it will inhibit the user from using it due to both cost of the circuit and time delay because not enough bandwidth is affordable. In Jordan, there is an efficient local access price; however, there is an artificially high price to use either satellite or international fiber lines to access the global network such as to FLAG at Aqaba or via Israel (although this latter may also have political implications.) For whatever reason, economic efficiency could be achieved at rates similar to other countries to access international NAPs and data center locations. These links are priced by the international providers at the same uniform rate to all buyers depending on volume because they use proportional pricing based on incremental cost to provide larger bandwidth rather than the multiplier pricing – the nth channel costs approximately n times the first channel. Lower unit cost results from more usage of a fixed cost asset as a result of increased demand. This is economic efficiency.

C.5 Our Proposed Model Compared to World Model

So our efficient model is a multi-tiered network that is connected to the World Wide Web through many paths that are affordable and unrestricted. This is what is present in countries such as the United States where the local ISP connects efficiently to Tier 1 NAPs such as ATT, UUNET, MAEWest, and others. There is no additional charge for international access as the large providers incorporate this into their overall charges.

Our model looks like this:



Part III - Issues, findings, and concerns

Section D – Jordan Telecom

D.1. Jordan Telecom Access Link Prices

Issue: The cost of a link from Jordan Telecom to access the international gateway for the Internet is 10 to 100 times as much as similar access in other countries. In the US there is no charge to the ISP or the user for international links as these are embedded in the NAP prices. Where there is a cost such as for international private data networks, the cost is typically in the few hundred US dollars per month for 1.544Mbps (T1) links and a few thousand US dollars for 45 Mbps and higher. Satellite prices are 25 to 40 percent higher plus one time antenna and terminal costs. JTC prices are currently 18100JD for international leased lines and 24658JD for satellite circuits and were not quoted in the tariff for large bandwidths such as DS3 (45 Mbps.) These bandwidths will be needed to meet the needs of the goals being set for e-commerce and IT development.

Concern: In the case of Jordan, lack of supply of low cost links depresses demand and deprives users of collectively building enough volume to justify efficient high bandwidth links. This has a serious impact on the earliest IT market, the ISPs, as it discourages them from buying large bandwidth to satisfy the user desire for speed and it increases their costs and ultimately the end user price. Both of these factors suppress demand.

D.2. JTC Access Node and Buildout

Finding: In discussions with JTC and TRC, it was revealed that JTC plans to expand their data network capabilities substantially by providing a newer technology telecommunications system based on fiber optics links throughout Jordan within 6 months. This is also designed to provide a network access node for Internet traffic within Jordan.

Issue: While this is a positive development, it was accompanied by a comment that the cost of such network improvement is why the JTC needs to have higher rates for Access Links. This cross subsidization and is inefficient in a competitive market. All revenues from data should flow back to data as a separate entity.

Concern: With this investment in a data network, JTC remains a single supplier and has a dominant position over small companies that are legally and financially unable to compete or add alternative service. This inhibits or even prevents growth and competition.

D.3 JTC Monopoly Contract

Finding: JTC has a monopoly contract for all telecommunications and data services until 2004. This contract was not available for review for this study.

Issue: This agreement defines how the market will work for the next four years.

Concern: There is no legal way to compete and have market forces supply to meet the data demand for the next four years. This will serve to depress development of an IT industry dependent on a low cost, efficient network for Internet access and data transfer to international clients.

D.4 Cost Accounting

Issue: Neither JTC nor the TRC has a cost accounting system for determining the costs or pricing justification for services.

Concern: There is no methodology to audit and determine if prices are reasonable. In major countries, it is the mission of a regulatory board to authorize only prices that are reasonable and if possible to do this by type of service. In lieu of this, price caps, such as used in the European Union (EU) are used to provide a measure of reasonableness to prices.

D.5 Demand Studies

Finding: Neither the User associations such as int@j, TRC, nor JTC has demand studies showing the market size, potential market, price elasticity or other common indicators for setting prices based on costs. Typically marginal costs are a function of costs divided by demand plus profit margin, etc. and market based prices are driven by demand studies

Concern: There is no evidence to support costs or demand for either the monopoly or the potential competitive market.

D.6 Easy equal access

Finding: Although JTC is building new data facilities in its current network and facilities, there is no simple access point for physical interconnection of IT data company networks. Each ISP for example sets up and maintains a server farm, power, air conditioning and negotiates terms for physical interconnection.

Concern: It is costly to engineer a quality technical workspace with low, but expanding needs. A company tends to either under invest (the most common case for low capital companies) and then have serious expansion issues when demand grows at the Internet rate seen recently. An example of this was the America On Line problem when they changed their pricing structure and couldn't meet customer need for some time. A company can also over invest and then runs the risk of being unprofitable or non-competitive due to higher costs translated into prices – Ameritech.net faced this issue when it first started its ISP services.

Section E - Create Free Market, Competitive marketplace

Although JTC and the Kingdom of Jordan are working to develop an improved digital network infrastructure, it is inherent in a large corporation and an institution that change takes time. Added to this is the effort taking place to modernize the existing telecommunications lines. It is important to …"promote environments conducive to harmonious competition" in order for a free market to flourish. One of the aspects of the free market is the open competition and experimentation it fosters.

Experience is made from mistakes. Some of the entrepreneurial startups will fail, but these lay the groundwork for those that will succeed. And success in a small effort will encourage bigger efforts. Lack of experience is evident in the various interviews and discussions held during this study, at all levels. This is not a fault or misfeasance, just an observation that few businesses or managers in Jordan have had the incentive to experiment in the IT development or Internet market and therefore lack experience. In a similar manner, their workers have not benefited from experience in this area either.

In order to build a base of experienced managers to support the goals of the REACH 2.0 and other groups, a free market for IT infrastructure should be allowed. Once an experienced group has "graduated" from this school, they will be able to take on more sophisticated challenges and be able to identify realistic goals and achieve them. Their example will inspire more to follow. In a monopoly dominated environment, creativity is dampened and the barrier to entry is too high. In Jordan, the cost to enter the ISP market is $25,000 to license as a data provider and $2500 annually. In addition, the high cost of providing international access to the Internet inhibits research, educational activities and business investment.

E.1 Create private data companies that can resell capacity to others

By creating private data companies, business has incentive to be most efficient, offer more services, be competitive and identify and promote demand. Smaller companies can move faster to market and tend to focus on niche markets that are profitable and easy to mature.

E.2 Remove part of JTC to a private company

It is relatively easy to identify the parts of JTC that are related to data transport and carve it out as a separate entity. It is recommended that this be done, even if JTC is allowed to retain ownership such as it has in its new wireless venture. The impact on the current monopoly agreement should small as data is a small percentage of the total revenue and value.

E.3 Change Laws – Specifically sections 21b, 23, 24, 74b, 78 and 79 of the Telecommunications Law of 1995

Section 21b requires that exclusions can be given upon recommendation of the Commission and approval of the Council of Ministers to establish and operate a private telecommunications company. For a small company, the costs of legal and lobbying assistance is a very high barrier to entry. In addition, this is a lengthy process, hurting the "time to market" advantage that entrepreneurs and investors want to enjoy. It is recommended that this section be repealed.

Section 23 requires that a contract between the public and private networks requires approval by the TRC. No process for this is evident, but even if there were, it is a barrier to easy entry. The consumer will decide oversight of abuse by high rates or poor quality.

Section 24 requires a private network to become a public one to offer commercial services and then only after Commission approval. Again this restricts market entry and consumer choice. This section should be removed entirely.

Section 74 penalizes use of the Internet for voice traffic. In developed economies this has not yet amounted to any significant decrease in traditional voice revenues for monopolies, in fact wireless has had a much greater impact. Use of a computer for voice is actually very expensive considering the initial equipment investment. As a shared resource, use of the computer for voice services such as call centers and customer care, e-commerce, and conferencing actually is a positive training and experience building exercise. Utilization of digital circuits for IP telephony (VoIP) is in its infancy, but promises to reduce traditional costs of calls outside of the Internet. Section 74a can remain as a penalty for illegal use of facilities without paying, but the use of the Internet to place calls should be allowed as a legitimate use of the network. Section 74b should be repealed, thus allowing competition and access for international connections at prevailing market prices, significantly less than current prices.

Section 78 should be repealed or replaced with a clause that restricts misuse of a network, such as to illegally tap into a competitor's circuit or to disrupt any other person's services.

Article 79 would restrict a company from reselling its excess capacity. In the case of an IT park or incubator facility, it would not be possible to aggregate traffic in order to negotiate a lower rate. This section should be repealed.

Section 22 has a discrepancy between the Arabic and English versions – strike the word "cable" from the English version.

E.6 Easy equal access

To minimize the initial delay in the small IT development startups in acquiring sufficient capital to provide a technology to provide their services efficiently and to encourage an equal playing field initially for all entries a high tech data connection center is proposed. This could be initially structured and designed as part of the JTC data facility buildout if it is located on the new backbone circuit route.

The facility would be designed to incorporate:

- a secure and accessible data center
- an equal technology and interconnection center for all entities
- access directly to international access links by FLAG and satellite
- office and support facilities, including incubator and research facilities

Such a design would be unique in the world by combining a data center and an open office or campus for the technology functions of IT users.

E.7 Seed Funding by Kingdom of Jordan

The above recommendations will cost millions of dollars to implement. It will be difficult for existing companies to organize, to attract investment funds, to set standards and demand requirements, and to design a world-class facility in the short time needed to put Jordan in a regional and possibly world-leadership position and capital needs for such a facility

It is recommended that the Kingdom of Jordan undertake a study to determine the technology and fund whatever it takes as immediate seed funding to start up the IT development industry. By funding this through negotiable bonds backed by the Kingdom of Jordan (KOJ), it allows investors a secure path to participate and if not totally subscribed can be made whole by direct government funding. It also provides an initial example of market enterprise and investment by the first IT venture capitalist, the KOJ.

Section F - Analysis

Section 12.a.1 of the Communications Law of 1995 suggests public communications networks are to be administered in a competitive manner. 12.a.5 and 12.a.16 indicate that a methodology be in place to evaluate and set price controls. This cannot be done without effective analytical tools and knowledge. This section recommends that all involved parties need to acquire and exercise more analytical skills in demand, market analysis and pricing. This is needed regardless of deregulation of all or part of JTC.

F.1 Lower Rates via a Market Basket Rate Cap

The most consistent and obvious complaint heard in all sessions was the need to reduce rates for international links. In addition to allowing independent access to international carriers, it is recommended that immediate reduction of rates take place. These rates could be reset immediately by a rate cap composed of a market basket of rates in several similar countries. The EU has set up such a scheme. Although a rate cap is not an optimum pricing mechanism, it is a reasonable value in lieu of any definitive valuation. Post analysis could be done to remedy any discrepancy, but this is not a large revenue source for JTC as a percentage of their entire revenue. Due to lack of accounting information, it is beyond the scope of his report to determine exact numbers, but a rough estimate is less than $JD25 million for the initial data portion.

The incentive to expand bandwidth and services after lowering of access link prices should be advertised and documented to stimulate demand and awareness of these services, thus indirectly advertising the IT industry and the REACH vision. This also would encourage ISPs to pass on their savings to their clients.

A rate cap is a "not to exceed" price for the monopoly that allows JTC to also be competitive as long as they don't cross subsidize and set an artificially low price to gain market share and keep out potential entrants. This is called the "deep pockets" approach and is illegal.

F.2 Implement Rate of Return oversight of JTC

The current law encourages price control. An effective mechanism is rate of return pricing that allows a reasonable return on value, but not excessive, by JTC. Consideration of rate caps for data only should be noted as this can be in conflict with ROR pricing without close accounting oversight.

F.3 Implement Cost Analysis at TRC

The Law requires TRC in section 12.a.5 to "draw up standards, bases, and formulas for determining the rates of services offered…". TRC stated that such an effort would take up to a year, then indicated that they are not properly staffed to do such a study. JTC has no methodology to organize or submit their costs for standard analysis as they have not been required to do this in the past.

F.4 Implement Demand Studies

Pricing for rate of return and for the market requires demand and elasticity information. None of the stakeholders indicated their knowledge of such studies. Except for a vision to get to 30,000 IT workers and develop a $JD550 Million IT industry, there is no study showing how this is achievable based on current local, regional, or world market conditions.

F.6 Create more Stakeholder Associations; include schools, medical, financial, IT Industries external to Jordan

There were no representatives from institutions other than the providers or the government at the stakeholders meetings or interviews. Whole classes of potential high usage users (as seen in other countries) include:

- financial
- medical
- education
- the general business community
- foreign interests wishing to penetrate the Jordan market.

Advertising to and formation of affinity and special interest groups are needed. For instance, schools probably see the cost of access so high that they don't even consider themselves users.

F.7 Conduct Market Studies

Market studies are typical to determine demand and interest in new products and services. They are also ways to stimulate demand. There was no compelling evidence that if Ireland, for instance, displaces call centers for higher order IT services, that anyone would consider Jordan as a possible site to relocate. Studies of domestic as well as international, regional, and specific region markets are needed to further analyze what types of IT services would be attracted to Jordan.

Section G – Planning

G.1 Develop priority and strategies, then create tactical action plans

Markets are captured by strategies and competent management over a long term. There is evidence that IT companies are chasing each other's customers. For example, it was estimated that there are 30,000 Internet users. Comments indicated concentration on how to better serve them as a competitive edge over JTC or other ISPs. An expansion into a market of over 500,000 potential users based on a high penetration of existing telephone users was not mentioned.

A well planned strategy and a schedule of actions to achieve goals is needed. These are the how and when to the why and what noted in Section C.3 above. How much is yet to be seen.

G.2 Create a co-opetition environment – win –win –win

It was disappointing to hear both the users of data services and JTC complain about each other. Even providers were complaining about the quality of their competitors' services. Efforts to change this to a win-win environment where better public knowledge of the IT industry as a positive force for change is needed. An example in the US and other companies is the bad reputation that cable TV companies had for service. This has effectively discouraged the American consumer from purchasing High Definition TV because they don't "trust" CATV to deliver a quality signal that demands a quality set. This has further delayed digitization of movies and other media for delivery via cable and DVD.

Co-opetiton is the art of cooperating while competing. By sponsoring "technical fairs" and other public awareness events, the providers can pool their resources to increase demand, thus growing the overall market and their revenues rather than competing for market share in a static market.

It is recommended that monthly meetings be held at JTC on what technology and the various associations are doing. TRC, JTC , and int@j could be co-sponsors.

G.3 Be different but positive

IT development based on telecommunications access and bandwidth has created many different opportunities. By developing niche markets, a company can establish itself as a unique and valuable service. By forming strategic alliances, it can concentrate on its core business while sharing common information on such things as new equipment and techniques or marketing and funding opportunities with its partners.

Part V - Bibliography

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Link Access

Legal report

Prepared by

International Business Legal Associates

(IBLaw)

Telecommunication Law	Article 20: No one can operate a public or private network unless has obtained a license or permit.	Restrictive. a) It is not clear from the Article whether a "license" or "permit" is required in case of a private network. b) Requiring such license or permit for operating private network is a barrier in front of businesses and IT parks.	Delete license or permit requirement for operating a private network.
Telecommunication Law	**Article 21/b:** The Council of Ministers shall be entitled , by virtue of recommendation by the Commission, to exclude any juridical person from the conditions of obtaining permit to install and operate telecommunication network.	Restrictive.	As stated above, delete the approval requirement and allow private networks to be set without license or permit since it is a barrier to entry.
	Article 23: Subject to the Commission approval , departments and persons excluded from approval under Article 21, may connect their private networks to public networks.	Restrictive. Requiring approval from Commission on connection contracts between public and private is unnecessary.	Delete approval of Commission since such connection contract would be based on commercial relations between the private network and the public network , so there is no need for intervention by the Commission.
	Article 24: Departments and persons excluded under Article 21 shall not offer commercial telecommunications services to beneficiaries or subscribers on private telecommunication networks except after such network is licensed by the Commission as a public telecommunication	Restrictive. a) IT parks will not be able to re-sell telecommunication services to businesses located in the park or to aggregate traffic in order to negotiate lower rates. b) a company will not be able to re-sell its excess capacity .	Owners of private networks should have the ability to use their private network for commercial reasons.

	network pursuant to this law.		
	Article 74(b) : Anyone who offers or contributes to offering international telecommunications services by such means that would lead to competition between licensed telecommunications networks and foreign telecommunications networks shall be punished by imprisonment (1 month-3 months) or by a fine (100-1000 JD).	Restricting use of internet for voice traffic.	Repeal this Article and allow for competition access to international connections at prevailing market prices.
	Article 78: Anyone who installs or operates a public telecommunication network in contradiction to the provisions of this Law, shall be punished by imprisonment for a period not less than one month and not longer than six month , or by a fine (2000-5000 JD) or by both.	Restrictive.	Repealed or reworded so that what is punished is the misuse of a network such as to illegally tap into a competitor's circuit or disrupt any person's services.
	Article 79: Anyone who connects a private network to a public without the Commission's approval shall be subject to imprisonment not exceeding 6 months or a fine (500-2000 JD) or by both.	Restrictive.	To be repealed so as to allow private networks to be connected to public networks without Commissions approval .